

Processing of SRTM3 DEM for delineation of Hydrographic Features using GRASS

Sayedur R Chowdhury
Asian Institute of Technology

Nitin K Tripathi
Asian Institute of Technology

Abstract

Shuttle Radar Topographic Mission three arc second topographic data (SRTM-3) covering Halda river watershed area of the South-eastern part of Bangladesh was used for hydrographic feature extraction. The data was obtained from USGS Eros Data Center. The SRTM data was processed and used for automatic delineation of hydrographic features over the area using GRASS. The hydrographic features extracted were the stream network and watersheds. These features were extracted with and without drainage network enforcement. The results from these extraction processes were compared. The delineated stream network was also compared with Landsat 7 ETM+ image. Use of SRTM in combination with open source tools like GRASS was found promising for the intended application area.